

Integers: no decimals  
negative or positive #'s or zero  
-2, -10, 0, 15, 1372

Be able to do as much math in your head as possible

$$\begin{array}{r} 477 \\ 5 \overline{) 2385} \\ \underline{-20} \phantom{0}^* \phantom{0}^* \\ 38 \\ \underline{-35} \\ 35 \\ \underline{35} \\ 0 \end{array}$$

$$\begin{array}{r} \phantom{0}^{\frac{1}{3}} \phantom{0}^{\frac{1}{3}} 477 \\ \times 25 \\ \hline 2385 \\ + 954 \phantom{0} \\ \hline 11,925 \end{array}$$

estimate:  $\begin{array}{r} 500 \\ \times 20 \\ \hline 10,000 \end{array}$

## Negatives

in adding:  
and subtracting

$$5 + -2 = 5 - 2 = 3$$

$$\begin{array}{c} \overbrace{-5 + 2}^{+1 \quad +1} = \begin{array}{c} +1 \quad +1 \\ -5 \quad -3 \end{array} = -3 = \overbrace{2 - 5} \end{array}$$

$\overbrace{\square \square \square \cancel{\square} \cancel{\square}}_{-3} \quad \cancel{\square} \cancel{\square}$

$$-5 + -2 = -5 - 2$$

$\square \square \square \square \square \quad \square \square = -7$

$$\begin{array}{c} -1 \quad -1 \\ \circledast -7 \quad -6 \quad -5 \end{array}$$

in multiplying:  
and dividing:

$$\begin{aligned} (-5)(-2) &= +10 \\ 10 \times -3 &= -30 \\ \frac{30}{-3} &= 30 \div -3 = -10 \\ + \div - &= - \end{aligned}$$

$- \times - = +$	$- \div - = +$
$+ \times - = -$	$+ \div - = -$
$+ \times + = +$	$+ \div + = +$
$- \times + = -$	$- \div + = -$

ex  $(11) \times 2 = 22$   $(-1) \times (-1) \times (-2) \times (-2) = 4$

even # of negatives  
= positive

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$$\frac{(8)(-1)(-2)(-2)(-2)}{30 - -2} = \frac{+64}{32}$$
$$30 + 2$$
$$= \boxed{2}$$

even # of negatives  
→ + answer

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$$(-36 \div 2) - -1$$
$$= -18 + 1$$
$$= \boxed{-17}$$